(Whereupon, end of in camera proceedings.)

JUDGE HAYNES: I think we'll return to the public record.

Did staff have cross for this witness?

MR. FOSCO: No, your Honor.

JUDGE HAYNES: Mr. Anderson, did you want to move to admit your Cross Exhibit 47?

MR. ANDERSON: Yes, I did.

MR. CHORZEMPA: No objection.

MR. ANDERSON: I moved.

JUDGE HAYNES: It's admitted.

(Whereupon, SBC Cross Exhibit No. 47 was admitted into evidence.)

JUDGE HAYNES: Any redirect?

MR. CHORZEMPA: Yes, your Honor. We have a bit.

REDIRECT EXAMINATION

BY

MR. CHORZEMPA:

Q. Mr. Pitkin, you were asked some questions by Mr. Anderson regarding an e-mail that you cited

to in your testimony in reliance on the fact that I believe two sizes of digital loop carrier runs and jams would produce similar results. Do you remember those questions?

MR. BRIAN PITKIN: I do.

Q. And I want to ask you an open-ended question. Why did you cite to that e-mail in your footnote?

A. The intent of the e-mail from Ms. Hamill to Mr. Anderson it read: Carl, the estimator report provided by SBC indicates that there are no cost differences between 672 DLC and 2016 DLC. Please provide the underlying cost support.

And it goes on a little bit. This entire purpose of this e-mail and why we cited it was to confirm that when they actually estimated the cost of the DLC systems, they don't vary by the installation cost, don't vary by the size of the system.

So how we use it in our testimony and what we're referring to is about the relative cost and the use that linear loading factors are not

appropriate because installation costs are not directly proportional to material costs.

Q. Mr. Turner, you were asked a number of questions regarding your experience and qualifications. Do you remember those series of questions from Mr. Anderson?

MR. STEVEN TURNER: Yes, I do.

Q. Mr. Turner, can you explain why you believe you're qualified to provide your testimony here today and, in particular, on the subjects of outside plant cable and digital loop carrier equipment?

MR. ANDERSON: I'm going to object. Beyond the scope of my cross. I did not ask him questions -- an open-ended question. I asked him specific questions about his involvement with outside plant facilities.

Those were the scope of my questions. And I don't believe --

MR. CHORZEMPA: My response is, I mean, the intended questions was obvious. Of course, to ask questions to somehow make it appear as of his

experience is limited. I'm just Mr. Turner to state what experiences and qualifications he has in regard to outside plant digital loop carrier equipment, which Mr. Anderson did ask about.

JUDGE HAYNES: Overruled.

MR. STEVEN TURNER: I have a considerable amount of experience in engineering outside plant facilities, in particular the facilities that we used to connected from -- when I was an engineer at AT&T to connect from AT&T's wire center out to enterprise business customers for DS-1, DS-3 and high-speed loops.

Also, it involved the engineering and planning of fiberoptic routes that would be used to connect to digital loop carriers, which are a significant part of the cost proceeding.

And then, finally, in a very much related manner is the actual digital carrier equipment itself which takes the analog copper loops and converts those to a digital signal for delivery back to the switch.

And so my responsibilities included

everything except this specific copper component that I was asked about. But it includes everything including fiberoptic facilities, digital carrier equipment and the terminal equipment that would be used for high-speed loops.

Q. Mr. Turner, you were also asked, I believe, some questions -- in relation to questions asked about your qualification, Mr. Anderson showed you your testimony from an Indiana proceeding.

And although Mr. Anderson is the sole keeper of that transcript right now, unfortunately, hopefully I can ask the questions specific enough that you will remember. I think we'll able to do it since we had our bathroom break.

You were asked -- you were shown some questions and answers you gave in Indiana. In relation to the first question and answer I think Mr. Anderson gave you, you indicated there was a difference in the question that was posed in Indiana and the question you believe Mr. Anderson is posing here.

Can you explain the difference in your

mind between those two questions.

MR. STEVEN TURNER: Yes. Mr. Anderson asked me the question as to whether or not -- as I recall it, as to whether or not I had any experience in the area of engineering, outside plant facilities. And then when I said "yes," he proceeded to go to the transcript which asked me the question as to whether or not I had experience with the installation, to which I answered "no," but then gave a lengthy explanation of everything that I was responsible for in that job of planning and engineering outside plant facilities.

I had personnel that reported to me that were then also responsible for installation. But because of the timing of the projects and where we were at AT&T's local entry initiative, we did not get to the installation phase in that work while I was still an employee of AT&T.

Q. And one last question. You remember Mr. Anderson asking you some questions made by a Joe Nachio of Quest. Do you remember that?

MR. STEVEN TURNER: Yes.

Q. And during the course of those questions, I believe you asked Mr. Anderson to explain whether or not he was referring to copper loop or copper loop equipment. Can you explain the distinction that you were trying to make there?

MR. STEVEN TURNER: My concern was that when Mr. Anderson was asking about copper loop equipment, that he might be including in his definition, which he refused to clarify, but whether he might be thinking that that would include digital loop carrier electronics that would be attached to a copper loop.

And I didn't want the interpretation of our answers to be extended to including copper loop electronics equipment. Our answers that the quote did not relate to copper was just for the copper itself, but the quote did specifically address copper loop electronics.

MR. CHORZEMPA: I have nothing further, your Honor.

JUDGE HAYNES: Recross.

MR. ANDERSON: I have nothing further.

JUDGE HAYNES: Thank you.

We have to take a quick break.

(Whereupon, a brief recess was taken.)

JUDGE HAYNES: Okay. Let's go back on the record.

Mr. Townsley, would you like to call your witnesses?

MR. TOWNSLEY: Yes, your Honor. On behalf of WorldCom, Inc., doing business as MCI and a host of other CLECs, the joint that I will refer to is the joint CLECs, we would like to call August H. Ankum and Sidney L. Morrison to the stand.

JUDGE HAYNES: I need to swear you in. Please raise your right hand.

(Witness sworn.)

JUDGE HAYNES: Thank you.

AUGUST H. ANKUM, Ph.D.,

SIDNEY L. MORRISON,

having been called as a witness herein, after having been first duly sworn, was examined and testified as follows:

DIRECT EXAMINATION

BY

MR. TOWNSLEY:

Q. Dr. Ankum, would you please state your full name and business address for the record, please.

DR. AUGUST ANKUM: My name is August H. Ankum, 1261 North Paulina, No. 8, Chicago, Illinois 60622.

Q. Mr. Morrison, would you please state your full name and business address for the record.

MR. SIDNEY MORRISON: Yes. I'm Sidney L. Morrison, 415 Planters Leafy Drive, Sunset Beach, North Carolina 28468.

MR. TOWNSLEY: Your Honor, Dr. Ankum and Mr. Morrison are going to be sponsoring two pieces of testimony in this proceeding.

What I have marked as Joint CLEC Exhibit 1.0 is the direct testimony of August Ankum and Sidney Morrison. There is a public and a proprietary version of that testimony, and there are four attachments to the testimony. Only attachment number 3 is proprietary.

Mr. Morrison and Dr. Ankum are also

going to be sponsoring what has been labeled surrebuttal testimony. It is marked as Joint CLEC Exhibit 1.1. there are no attachments to that testimony, and the testimony is public.

Dr. Ankum also is sponsoring two pieces of testimony on his own. The direct testimony of Dr. Ankum has been marked as Joint CLEC Exhibit 3.0. There is both a public and a proprietary version of that testimony. There are two attachments to that testimony, both of which are public.

Dr. Ankum is also sponsoring surrebuttal testimony on his own. That has been marked as Joint CLEC Exhibit 3.1. there are four attachments to that testimony. They are all public, and the testimony itself is public.

It's my understanding we're disposing with the direct examination of the witnesses. And at this time, you Honor, I would move for the admission of Joint CLEC Exhibit 1.0, 1.0-P, Joint CLEC Exhibit 1.1, Joint CLEC Exhibit 3.0, and Joint CLEC Exhibit 3.1.

JUDGE HAYNES: Any objection?

MR. SULLIVAN: No objection.

JUDGE HAYNES: Those exhibits are admitted.

(Whereupon, Joint CLEC Exhibit Nos. 1.0, 1.0-P, 1.1, 3.0, and 3.1 were admitted into evidence.)

JUDGE HAYNES: Cross?

MR. SULLIVAN: Thank you, your Honor.

CROSS-EXAMINATION

BY

MR. SULLIVAN:

Q. Good afternoon, Dr. Ankum. Good afternoon, Mr. Morrison.

DR. AUGUST ANKUM: Good afternoon.

MR. SIDNEY MORRISON: Good afternoon.

Q. I am going to, in some instances, direct my question to one of you. And other instances, I will leave it open-ended and whoever feels like answering can answer.

Dr. Ankum, you're an economist; correct?

DR. AUGUST ANKUM: Yes.

Q. And you're not a telecommunications network engineer?

DR. AUGUST ANKUM: That's correct.

Q. You've never worked in a central office or out in the field doing installation, repair or maintenance work for telecommunications equipment?

DR. AUGUST ANKUM: I have not.

Q. Dr. Ankum, you were hired by WorldCom and other CLECs, the Joint CLECs, to testify here on their behalf; is that correct?

DR. AUGUST ANKUM: Yes.

Q. You were not retained by AT&T; correct?

DR. AUGUST ANKUM: That's correct.

Q. And are you being paid for your appearance here?

DR. AUGUST ANKUM: Yes, I am.

Q. Are you being paid on an hourly basis?

DR. AUGUST ANKUM: Yes.

Q. And what is the hourly rate that you're charging the Joint CLECs?

DR. AUGUST ANKUM: I believe 280.

Q. Are you being compensated by the Joint

CLECs in any other way for appearing here?

DR. AUGUST ANKUM: I don't believe so.

Q. Mr. Morrison, you're not an economist; correct?

MR. SIDNEY MORRISON: That's correct.

Q. Your experience that you bring to your testimony is your experience working with telephone companies?

MR. SIDNEY MORRISON: That's correct.

Q. And you've been retained by the same parties as Dr. Ankum?

MR. SIDNEY MORRISON: Yes.

Q. And are you being paid for your time here?

MR. SIDNEY MORRISON: Yes.

Q. And what are you being paid?

MR. SIDNEY MORRISON: I believe about 225.

Q. Mr. Morrison, are you being compensated in any other manner other than the hourly rate you're charging the Join CLECs?

MR. SIDNEY MORRISON: No, I'm not.

Q. Well, to save the Joint CLECs some money, I'll try keep my cross-examination brief.

MR. TOWNSLEY: Thank you, Mr. Sullivan.

MR. SULLIVAN: Always looking out for your interest, Darryl.

BY MR. SULLIVAN:

Q. If you could turn to Page 28 of the direct testimony. And all my questions, gentlemen, are going to be referring to your joint testimony.

If you could both turn to Page 28, and I'll throw this to either of you. On Line 718, who is the "I" that you're referring to?

DR. AUGUST ANKUM: That would be me. The principal above there pertain to the TELRIC principals as I believe that are found in the FCC's local competition order.

Q. And, Mr. Morrison, you're essentially deferring to Dr. Ankum for that part of his testimony of what TELRIC requires and does not require; is that right?

MR. SIDNEY MORRISON: That would be right.

Q. Okay. Now, at several points in your testimony, you discuss time and motion studies. And in several instances, you suggest that SBC

ought to conduct time and motion studies; is that correct?

DR. AUGUST ANKUM: Yes, among the corrections and recommendations.

Q. For instance, at Page 39 of your direct testimony at Lines 961 and 962, you recommend that the SBC estimates be validated by time and motion studies; is that correct?

DR. AUGUST ANKUM: Yes.

Q. And that's a recommendation that you gentlemen made in your direct testimony, which was filed in May 6, 2003?

DR. AUGUST ANKUM: I believe that's the testimony that you're referring to already on that Page 39, right?

Q. In the time since you filed that testimony in May of 2003, have either of you conducted time and motion studies to validate any of the activity times at issue in this case?

DR. AUGUST ANKUM: I have not.

MR. SIDNEY MORRISON: And I have not.

Q. Mr. Morrison, you have performed time and

motion studies in the past, is that correct?

MR. SIDNEY MORRISON: That's correct.

Q. And if I recall correctly, most of the work you've done with time and motion studies was from a period during the late '90s and early '80s; is that correct?

MR. SIDNEY MORRISON: Yes. Most of it we've done between roughly 1979, 1983, '84. And then another period of time between about -- within 1999 and 2000.

Q. And the work -- we met in Indiana. I believe you testified that you did some time and motion studies in the late 1990s. Is that the same stuff you're referring to?

MR. SIDNEY MORRISON: Yes.

Q. And that was work that you did while you were working in Switzerland; is that correct?

MR. SIDNEY MORRISON: That's correct.

Q. Did you -- Mr. Morrison, did you rely on those time and motion studies in putting together your testimony in this case?

MR. SIDNEY MORRISON: No, I did not.

Q. And you didn't produce any documents to SBC relating to those time and motion studies; is that right?

MR. SIDNEY MORRISON: No. Uhn-uhn.

Q. If I could direct -- Mr. Morrison, if I could direct your attention to Page 53 at Lines 1304, beginning at Line 1304.

There you suggest that SBC could engage in independent third-party to audit and verify the results obtained by its cost models; is that correct?

MR. SIDNEY MORRISON: That's correct.

Q. Now -- and I'll ask this of both of you.

Did either of you or anyone acting on your behalf engage a third party to audit and verify the results that are contained in SBC's cost models?

DR. AUGUST ANKUM: We audited the results, but we have not subcontracted out any of that activity.

JUDGE HAYNES: Mr. Ankum, you're going to have speak into the microphone.

MR. SIDNEY MORRISON: Want me to repeat what I

said?

JUDGE HAYNES: Did the court reporter get it?

THE COURT REPORTER: Yes. Thank you.

BY MR. SULLIVAN:

Q. Dr. Ankum, the audit that you just referred to, is that the same type of independent third party audit that you gentlemen are referring to in your testimony there, or is there a different meaning to the term audit?

DR. AUGUST ANKUM: What we're suggesting here is that SBC would engage in a third-party, independent party, to do time and motion studies or validation of the time estimates. And, of course --

Q. If we can focus on the word audit there, is that the same type of audit that you just referred to when you stated that you and Mr. Morrison have performed an audit? Or are you envisioning some different type of audit process?

DR. AUGUST ANKUM: The audit process that we're envisioning here would be more extensive. It would involve the observing of all the activities, not in the manner that Ms. Gomez McKeans did, which is

just observe what is being done.

But as we point out in our testimony as well as rebuttal testimony, the critical issue is not to observe what is being done. The critical issue is to establish -- in addition to seeing what's being done, the critical issue is to establish how long it takes for various tasks, observing how long it take to travel from point -- observing how long from Point A to Point B is not the issue. The issue is --

Q. Doctor, if I could just --

DR. AUGUST ANKUM: Well --

Q. My question was going to what you meant in your testimony about audit. And that meaning of the term audit, that more extensive proceeding, have you or, Mr. Morrison, have you performed that type of audit as part of your work in this proceeding?

DR. AUGUST ANKUM: No.

Q. Mr. -- or, excuse me, Dr. Ankum, do you recall testifying in Indiana about time and motion studies?

DR. AUGUST ANKUM: Yes.

Q. Okay. Would you agree, Dr. Ankum, that in a time and motion study it's highly likely that you're going to inject bias into the process?

DR. AUGUST ANKUM: I think with the time and motion studies, with the exercise that SBC went through, one should always be alert that there is a potential for bias. So the answer is, yes, in part. On the other hand --

Q. Thank you, Dr. Ankum.

DR. AUGUST ANKUM: Well --

MR. TOWNSLEY: Mr. Sullivan, if you could please let the witness complete his answers, we can save ourselves some time on redirect and --

JUDGE HAYNES: Let him finish his answer.

DR. AUGUST ANKUM: The purpose of constructing valid time and motion studies is to be alert for potential biases, but then the time and motion studies to guard against the potential biases and filtered them out.

BY MR. SULLIVAN:

Q. I want to be clear on -- that I understand

your testimony with regard to the issue of the potential bias of SBC subject matter experts.

Are you in any way, anywhere in your testimony, suggesting that the SBC SMEs have provided false information in order to inflate CLEC costs?

DR. AUGUST ANKUM: I think my testimony can be read as such. Strictly speaking I'm saying that the potential for bias exists, and SBC has not provided the backup information that we need to determine whether the bias actually slipped into the time estimates or not. We simply can't determine that.

Q. So, Dr. Ankum, you do believe that your testimony can be read as an accusation that SBC subject matter experts provided false information? Did I hear you correctly?

DR. AUGUST ANKUM: I think one can read my testimony and think that I'm suggesting that. If you read it carefully, I don't anywhere in the testimony make that explicit accusation that I clearly suggest to the Commission that the

Commission should be alerted to that.

Q. And as you sit here, you're not accusing SBC SMEs of providing false information?

DR. AUGUST ANKUM: I haven't reached that issue since I don't have the information to determine either way.

Q. And, Mr. Morrison, are you making that accusation either in your testimony or here today?

MR. SIDNEY MORRISON: No, I'm not making the accusation that those masses are actually there. Only that the potential for those biases exist.

Q. Thank you.

Now, Mr. Morrison, one of the aspects of this potential bias issue is your belief that job security of the subject matter experts may depend on them giving certain inflated activity times?

Do I character your testimony correctly?

MR. SIDNEY MORRISON: Yes, that's probably a fair characterization. The incentive for bias is -- become almost peripheral motive to the SME because of the SMEs relationship with jobs that have been done. People that do the jobs and all

the management tasks revolve around those particular jobs. So there are a number of reasons that bias can be thrown in the process for good reason on part of a SME.

Q. Mr. Morrison, if you could turn to Page 39, Lines 958 and 959. And there you talk, don't you, about the perception by SMEs that SBC's competitors might be a direct threat to their job security. Do you see that?

MR. SIDNEY MORRISON: Yes, I see that.

Q. Mr. Morrison, are you -- did you review the testimony of SBC's witnesses who addressed nonrecurring costs?

MR. SIDNEY MORRISON: Yes, I did.

Q. Did you review Mr. Christensen's testimony?

MR. SIDNEY MORRISON: Yes, I did.

Q. And based on your experience and your background with telecommunications work, are you familiar with the tasks that Mr. Christensen's work group performs?

MR. SIDNEY MORRISON: Yes.

Q. Can you explain to me how the subject

matter expert working in Mr. Christensen's work group would perceive SBC's competitors as a direct threat to their job security?

MR. SIDNEY MORRISON: The competitors are basically the work that they particular work group deals with on day-by-day basis. So the over-arching view of that group is that's basically 100 percent what they do. The more of it, perceptively, the better off they could potentially be.

However, in the world of unintended consequences, we can get into the fact that the CLEC becomes a threat to the ILEC, may produce positive results in their organization but negative results in other organizations, which tends to take the company apart and drive it into economic discertainties, which Dr. Ankum is much more prepared to talk about than I am. And can, in fact, have unintended consequences if they don't necessarily view as positive for their existence.

Q. So if I understand you correctly, Mr. Morrison, with respect to Mr. Christensen's

work group, CLEC competition might increase the amount of work that their group does but might have a negative impact on SBC in general, which they may perceive as a threat to their job security?

Did I characterize your -- did I understand your testimony?

MR. SIDNEY MORRISON: That's a fair characterization.

Q. Now are you familiar, Mr. Morrison, based on your experience in the telecommunications field with the work that Ms. Gomez McKeans work group does?

MR. SIDNEY MORRISON: Provisioning group?

Q. Yes.

MR. SIDNEY MORRISON: Yes.

Q. And can you explain how a subject matter expert in Ms. Gomez McKeans work group -- well, would the -- would your answer be the same for Ms. Gomez McKeans work group as it was for Mr. Christensen's work group?

MR. SIDNEY MORRISON: Very much so. I think that in the case of both groups, they much rather

be doing -- performing the work for -- in totality for their own companies as opposed to a competitor.

Q. Well, Mr. Christensen's work group doesn't do any work for SBC's own customers. It does only CLEC work; right?

MR. SIDNEY MORRISON: That's correct.

Q. Ms. Gomez McKeans work group does provisioning work and they do it for CLECs and for SBC's own end user customers; is that correct?

MR. SIDNEY MORRISON: That's my understanding.

Q. Okay. And are you familiar with Mr. Cunningham's testimony?

MR. SIDNEY MORRISON: Refresh me. I've lost --

MR. TOWNSLEY: Was this adopted?

MR. SULLIVAN: No. He was waived, but that's okay. I don't want to force you to recollect something that, you know, you don't recollect. That's fine.

At Page 39 and 40 -- well, in particular, I want to draw your attention to a phrase on Line 976 of Page 40. Mr. Morrison, your testimony refers to related job loss?

MR. SIDNEY MORRISON: Which line?

Q. That's Line 976, Page 40. It's a carry over sentence from 39.

MR. SIDNEY MORRISON: Okay. Yes.

Q. The phrase, related job losses there, is that the same sort of concept that you spoke of a few minutes ago about CLEC competition generally being perceived as not good for SBC as a whole?

MR. SIDNEY MORRISON: That would be the perception that I hear constantly, not necessary only in SBC. Probably less than SBC because I have little contact with it, but with other ILECs.

Q. Could you turn to Page 27.

Dr. Ankum, I have a couple questions for you.

DR. AUGUST ANKUM: I'm there.

Q. Actually, if you could turn to Page 28. You list a couple principals. I want to ask you about Principal No. 3.

You'd agree with me that technology should incorporate up-to-date business processes under TELRIC; is that right?

DR. AUGUST ANKUM: Generally, yes. And if you understand up-to-date to mean forward-looking most efficient, yes.

Q. And that's forward-looking most efficient technologies that exist today; is that correct?

DR. AUGUST ANKUM: Yes, technologies that are available. They don't necessarily need to be implemented, just that technology should not be pie in the sky.

Q. It's something that needs to be available to the ILEC, though?

Whether ILECs are using ubiquitously, it's something that the ILEC must be able to go out and gather or develop on its own?

DR. AUGUST ANKUM: Yes.

Q. And those technologies, in your view, include an efficient OSS process?

DR. AUGUST ANKUM: That's part of it, yes.

Q. Are you familiar with the OSS collaboratives that SBC participates in with some of the CLEC community?

DR. AUGUST ANKUM: Somewhat, but I have not

participated in it myself.

Q. Okay. Are you aware of what the purpose of those collaboratives is?

DR. AUGUST ANKUM: I believe that the genesis of those collaboratives goes back in large part to the anticipation of 271 applications and the setting up of standards and making sure that the CLECs and ILECs interface in a way that these can be met.

Q. And is it your understanding that these collaboratives solicit input from both ILECs and CLECs in the development of performance measures and development of OSS enhancement?

DR. AUGUST ANKUM: Yes.

Q. Mr. Morrison, in Indiana we talked about development of front ends ordering systems that allowed an ILEC to design a system which would capture all front end errors; do you recall that?

MR. SIDNEY MORRISON: You're talking about ordering process?

Q. Yes.

MR. SIDNEY MORRISON: Yes, I recall that.

Q. In your experience, are you aware of any

ILEC that has, in fact, developed a system that catches -- that captured all front end errors?

MR. SIDNEY MORRISON: I wouldn't use the term captures all front end errors, but I would refer you to some examples that we use in our testimony about an E-system that four specific orders types does capture approximately 99 percent, I believe it is, of order errors.

Q. It captures 99 percent of the front end order errors; is that what you're understanding of --

MR. SIDNEY MORRISON: I believe that's the term, yes.

Q. Were you present yesterday for Mr. Christensen's testimony?

MR. SIDNEY MORRISON: Parts of it.

Q. Were you present when he discussed the fact that SBC's service ordering system captures 4800 different error reasons as part of its front end ordering process?

MR. SIDNEY MORRISON: Yes, I caught that part.

Q. And did you -- were you also present when

he testified that there were 14 errors that are not captured by SBC's front end ordering process?

MR. SIDNEY MORRISON: Yes, I heard that.

Q. Based on your telecommunication experience, are you aware of any ordering system that achieves a better front end error capture rate than what Mr. Christensen describes?

MR. TOWNSLEY: I guess I'm going to object to the form of the question. Can you please clarify. Are you assuming -- does your question assume that that captures -- that there's an entire universe of errors that can exist and there's only 14 errors that SBC's OSS systems can capture?

BY MR. SULLIVAN:

Q. Mr. Morrison, did you understand the question?

A. Yes, I understand the question. The 4800 auto-detects refer the order back to the originator. That's pretty a granular process when look at the relative numbers, which considers the number of failures that fall into the 14 separate buckets that make up the 14 separate categories for

processing downstream that suddenly become part of the manual intervention process.

If you have 14 very large non-granular buckets, so to speak, then somebody better be taking the bucket and cutting it up into smaller cups and identifying the volumes in the smaller cups and push it back so that eventually you have 1400 different ones. New codes that revert back to the originator and a lesser number falling into the buckets, so your end of the stick.

Q. And as you sit here today, you don't know whether the 4800 front end that Mr. Christensen talked about are more or less granular in detail than the 14 error situations that he talked about; is that right?

MR. SIDNEY MORRISON: No. I don't have -- I haven't seen any statistics on that; but logic tends to tell you if he's looking at 10, 15, 20 percent, whatever percent of fallout that false into the LSC, then those 14 categories have to be somewhat less granular than the previous 4800.

Q. If I could turn your attention to the

Page 33 of your direct testimony. Beginning at Line 837, there's a discussion of work flow engines. Do you see that, Mr. Morrison?

MR. SIDNEY MORRISON: Yes, I do.

Q. Do you have a particular work flow engines in mind that you believe SBC should be utilizing?

MR. SIDNEY MORRISON: No, because of the asymmetric information that I have about SBC's OSS, I couldn't sit here and actually recommend that very specific product.

But what I would recommend and what you find that you can do is go to the marketplace to any number of software vendors and start talking in terms of flow engine, work flow manager, declaration software, and you'll start to come up with vendors that'll start looking at your process.

And not far down the road, you'll have bidders making commitments. It's not a situation where there's a single shrink-wrap package that you go out and rip off the shelf, plug into your systems and fly.

Q. It's something that needs to be developed

in conjunction -- in consultation with a vendor and the parties seeking the work flow engine?

MR. SIDNEY MORRISON: Yeah, like the vast number of systems that you have, there are certain customization that goes on to the customer.

Q. If you could turn to Page 5 and 6 of your rebuttal testimony.

DR. AUGUST ANKUM: Which page?

Q. 5 and 6. Well, it's Exhibit 1.1. I think it's label surrebuttal testimony. Just so we're on the same page, it was the testimony you filed on February 20th.

DR. AUGUST ANKUM: Yes.

Q. Dr. Ankum, am I correct that if I have a question that relates to the question that begins on Page 5, Line 94, that you're the right person to ask that to?

DR. AUGUST ANKUM: Yes.

Q. Okay. There, Dr. Ankum, you talk about the Virginia arbitration order beginning at Line 106 of Page 5?

DR. AUGUST ANKUM: Yes.

Q. And you refer to that as a decision by the FCC; is that right?

DR. AUGUST ANKUM: I met a few -- FCC is shorthanded. It is, of course, the FCC wire line competition bureau, which is part of the FCC.

Q. And if you don't know the answer, you know, feel free to say so; but do you have an understanding as to what the precedential value of decisions by the wire line competition bureau is?

MR. TOWNSLEY: I object. It calls for a legal collusion.

MR. SULLIVAN: I asked him for his understanding and I think I prefaced it that --

DR. AUGUST ANKUM: Obviously, I can't give you a legal opinion, but I think anybody watching the FCC staff to see where the FCC staff comes out on the TELRIC.

And, of course, we also have a TELRIC notice of proposal, making out -- being evaluated by the staff, and the staff had a -- the FCC staff had an input into the local competition order. Clearly when the staff finally is confronted as it

was Virginia, it made the decision themselves, getting all the input and typically doing -- and also proposed the rulemaking. They don't get the detailed information that they get, for example, that the ICC gets; but in the Virginia case, they did.

I think that the decision by the FCC staff clearly is not -- I don't know what it means as a legal precedent, but I think any economist looking at the Virginia order is looking at it with an eye for what the FCC staff thinks that TELRIC is and how nonrecurring charges, I think is really pertinent. If I were a commission and commission staff, I would clearly go to -- virtually every commission has done, they've all gone to the Virginia order. We, of course, need as part of our activities with various commission staffers and all of them have read the Virginia order.

Q. And you've met with all 50?

DR. AUGUST ANKUM: No, but --

Q. And you don't really want to testify that every single state commission has gone to the FCC

Virginia arbitration order?

DR. AUGUST ANKUM: Are you mocking me?

Q. I just want to be clear that your testimony is not actually. . .

A. No.

Q. Thank you.

If we turn to page -- just give me one moment.

At Page 6 and 7 at several different instances you talk about classification of activities as recurring versus nonrecurring costs. You could see where I'm talking about. I have specific line references, but it's throughout the paragraph that starts on Page 6 and goes over to Page 7.

DR. AUGUST ANKUM: Yes.

Q. Do you see that?

DR. AUGUST ANKUM: Yes.

Q. Just so that I understand your testimony, when you talk about the Virginia arbitration order, is it your understanding that that order says that these costs should be treated as nonrecurring cost

or that they should be recovered through -- well, let me try that again.

Do you understand the Virginia order to say that these costs are recurring costs, not nonrecurring costs, or that they should be recovered through recurring charges rather than nonrecurring charges?

DR. AUGUST ANKUM: I believe that the FCC speaks in terms of cost of nonrecurring activities. And when we hear that, our mind probably leaps to the activities that we see in the cost studies here, recurring costs studies. But, of course, included in that, of course, is also the cost of a nonrecurring activity associated with making a loop plan investments or an investment in a switch.

I mean, the majority of the investments in a telecom network are of a nonrecurring nature. Now, the question is, which one of those costs do you put in the recurring buckets versus the ones that you put in the nonrecurring bucket.

I believe that much of the argument is in this case about which bucket should we put

things in. I believe that SBC has front load them and put it incorrectly in the nonrecurring bucket. The nonrecurring bucket, I mean the nonrecurring charges.

Q. Okay. The last -- not the last. I want to talk to you about travel times. And, Dr. Ankum, am I correct that the part of your testimony that deals with travel times was is -- was drafted by you as posed to Mr. Morrison?

DR. AUGUST ANKUM: I might have been sitting behind the typewriter, but we were sitting in our hotel room trying to figure out in the complete absence of any information that SBC had proposed to us. And I am talking to my expert here and saying, Well, Sid --

MR. SULLIVAN: Your Honor --

DR. AUGUST ANKUM: I'm just explaining --

MR. SULLIVAN: I'm going to move to strike his answer. I just asked him whether it's something I should -- whether it was something that he drafted or they drafted together.

MR. TOWNSLEY: And I think he's trying to

explain that. Mr. Sullivan, if you let him answer, I think you might be satisfied with the answer he's going to give you.

MR. SULLIVAN: Your Honor, he's answering by just rehashing and making speeches about things that are already in this testimony, and I don't think it serves any of us to permit him to go beyond the scope of my question to --

JUDGE HAYNES: Let's move on to the next question.

MR. SULLIVAN: Thank you.

BY MR. SULLIVAN:

Q. If you could turn to Page 111.

JUDGE HAYNES: Which testimony?

MR. SULLIVAN: Of the direct testimony.

BY MR. SULLIVAN:

Q. There you depicted -- you have a diagram that's entitled Depiction of Average Travel Situation. Am I correct that as part of your analysis you're assuming an average loop length of 2.4 miles?

DR. AUGUST ANKUM: Roughly, yes.

Q. And you use that to assume that the average distance traveled is 2.4 miles in that diagram?

DR. AUGUST ANKUM: Within the purposes of this example, yes.

Q. And if I -- later on Page 114, you have a diagram that contemplates more than one activity being performed; is that correct?

DR. AUGUST ANKUM: More that one job.

Q. I'm sorry, more than one job on -- a technician will leave his starting point, proceed to a number of different locations, perform work and then return to a starting point?

DR. AUGUST ANKUM: Yes.

Q. And that's what you're trying to depict in paragraph -- in the diagram on Page 114?

DR. AUGUST ANKUM: Yes.

Q. Now, for purposes of the analysis that you did on Page 114, does it matter to you whether the technician starts his day and ends his day at a central office versus a garage versus his own home?

DR. AUGUST ANKUM: Not necessarily. I mean, the point is to lay out a possible travel pattern and

to see, given sort of reasonable assumptions, what average travel time you come up with.

And even though the technicians may not start from a central office, we were reasoning, even if the technician doesn't, but let's assume for a moment that the technician always has an option, as they do, to go to a central office, which may not be the shortest route because they could be going directly to a work site. But let's assume for a moment they do go to a central office, then what will be the travel times?

Q. And if you did this analysis, that's reflecting the diagram on Page 114, and instead of having the central office be a starting point, you have a maintenance garage or a technician's home, you wouldn't expect your results to -- of what an average travel time would be to change; is that right?

DR. AUGUST ANKUM: Well, if you change the assumptions, then, obviously, travel times would change. And I suppose that's the invitation we made to SBC by laying out some of the variables

that would go into travel times as opposed to saying, Well, it's 25 minutes or 30 minutes. And I throw up my hands. We're saying, Well, let's see, what sort of variables that are involved. How many jobs do you do? How many jobs do you do in a day? Where you do you depart from? What is the length in between jobs.

So laying out the variables, you made an invitation to SBC to come back and complete the analysis. And, of course, we were disappointed.

Q. In your diagram on Page 114, that analysis assumes that the starting point and ending point is the central office. If you assume that it was a garage, do you have an opinion as to whether the average travel time would be higher or lower, or do you not have an enough information to determine that?

DR. AUGUST ANKUM: It could be higher or lower depending on where the garage is located relative to the various jobs.

Q. Same answer for, if the technician starts from his own home?

DR. AUGUST ANKUM: Yes.

Q. Now, in your table on Page 115, you go through a mathematical calculation -- you go through some calculations to come up with an average travel time. I want to focus on the assumption that is contained in Line 2, the length of in between segments. You have assumed that the length of in the between segments is 1.2 miles? How did you come up with that number?

DR. AUGUST ANKUM: That number is, roughly speaking, half of the loop length. The notion being that the technician does not go back every time to the central office but rather it will -- technicians will generally operate within certain quadrants.

And Mr. Morrison has supervised technicians for precisely these type of activities. But if the central office wire center can be broken up in quadrants, and if the loop length is 2.4 miles, you have a number of jobs you begin to travel within that quadrant. We have roughly assumed that going from job to job that the travel

distance is half the length of the total, which then is 1.2 miles.

Q. So one of the assumptions that you made in your analysis that's reflected in the diagram on 114 and the table on 115, is that the technician will operate in a quadrant of the serving area of the central office that he's associated with or she's associated with?

DR. AUGUST ANKUM: It may not necessarily be the quadrant of one wire center, but my understanding is -- and you can ask Mr. Morrison about -- actually, let me hand this off to Mr. Morrison who really gave -- this is a joint product and the input on how technicians are dispatched came from Mr. Morrison.

MR. SIDNEY MORRISON: Yeah, the point on how the dispatch and how an effort is made to minimize the travel time for a technician is a relatively simple process.

In a provisioning process, there is a dispatch or load control. Sometimes they're called dispatchers, sometimes they're called loaders. In

today's world, you use some very exotic software that is designed to -- and the manual efforts are designed to minimize that travel.

What these loaders do, what the software does, it takes into consideration all the addresses that the technicians have to visit from the package of work that they have that day. And the package of work for each individual technician is designed such that these addresses, locations fall within a small cluster that you could possibly force it into such that you can -- once you've identified the addresses, then you can quickly develop little out limit that says, okay, go to this one first, this one second, third and so forth on down through the load.

What it does is compress all the travel time on the effort that goes into that for the technician and benefit of the technician.

Q. And the 1.2 miles that you gentlemen have assumed for the length of the in between segments, does that assume that all the jobs that are assigned to the technician occur in one quadrant,

one central office?

DR. AUGUST ANKUM: I think I just answered that question previously. I think you asked the exact same question, and I know that that's not necessarily within the same wire center but roughly within the same geographic area. That is roughly the same size as that of a quadrant of a wire center, but it could also bridge two wires centers.

Q. Okay. So underlying -- or one of the assumptions that you made in your analysis on Page 114 and 115, is that the technician will cover an area about equal to one-fourth of the area covered by a central office, bearing in mind that there might be overlap in the adjoining central offices and things like that; but the approximate size is one-quarter of the area served by a central office?

DR. AUGUST ANKUM: Yeah. My understanding from talking to Mr. Morrison is that it will depend on what geographic location you're talking about.

In an area like Chicago where you have a much denser population and the wire centers are

geographically smaller than you may find in a rural area, you have will have different -- the question of whether you operate at one quadrant versus in overlapping quadrants will be answered differently because you have a different situation.

And, again, this goes to illustrate the enormous complexity that underlies an analysis of travel times and why you just can't pick out of the blue a number without giving people any support at all.

Q. Have you performed any time and motion studies of the travel times associated with any of the cost studies in this case?

DR. AUGUST ANKUM: No, we have not.

Q. Mr. Morrison, in order to perform a time and motion study of travel times, would you need access to SBC's physical facilities?

MR. SIDNEY MORRISON: To do an actual real-world time and motion study on travel to be very specific to SBC's circumstances, yes, you would have to have access to SBC or at least access to a lot of critical information if it's even kept.

Q. For instance, you need to know where the central offices are located?

MR. SIDNEY MORRISON: That would be one of the things, yeah.

Q. And you need to know locations of their customers?

Or what other -- I mean -- well, let me step back.

Would you actually need to enter an SBC facility to conduct the time and motion study, or are you just saying you would need some information to figure out how long it takes from a central office to some other point?

MR. SIDNEY MORRISON: I think that the first thing you have to do is establish some parameters that -- you almost have to do a time and motion study specifically to that.

And then have the time and motion study off basically SBC and say, Either you run it or I'll run it. The preference would be that I run it.

Q. Well, what about the time and motion study

would require anybody to enter into a -- to enter a central offices facility or any other SBC facility?

MR. SIDNEY MORRISON: The travel is not done within a facility.

Q. Right. So why -- so you wouldn't need to get --

MR. SIDNEY MORRISON: No, I don't need to go inside the door, no.

Q. Yeah, you just -- you know, there's a central office down the street. You drive your truck. You go to some point. You don't need to go into any facility. You could do that just as well as someone from SBC could do that; right?

MR. SIDNEY MORRISON: That's right.

Q. Okay. Dr. Ankum, do you have a view as to whether this commission should assume for purposes of determining appropriate activity times whether the work is being performed by technicians of average experience and efficiency?

DR. AUGUST ANKUM: Yes.

Q. And is it your view that the commission should assume that the work is performed by a

technician of average efficiency and experience?

DR. AUGUST ANKUM: In addition to -- and I believe this goes back to the exchange we had in Indiana -- that these technicians have to operate in environment for a forward-looking, optimally, efficient processes and technologies in place, and I think that's the critical qualifier.

Q. So assuming those processes are in place, the commission should look toward technicians of average experience and efficiency in order to determine the appropriate activity time?

DR. AUGUST ANKUM: Yeah, and eliminate technicians, for example, that fall way below the average experience. For example, trainees.

MR. SULLIVAN: Thank you, Dr. Ankum. Thank you, Mr. Morrison.

That's all I have.

DR. AUGUST ANKUM: Thank you.

MR. SIDNEY MORRISON: Thank you.

JUDGE HAYNES: Does staff have cross?

MR. HARVEY: Staff does not.

JUDGE HAYNES: Redirect?

MR. TOWNSLEY: May I have just a minute.

JUDGE HAYNES: Okay.

MR. TOWNSLEY: I have just a couple of questions.

REDIRECT EXAMINATION

BY

MR. TOWNSLEY:

Q. Mr. Morrison, you were asked some questions by Mr. Sullivan about whether would you need access to SBC facility to do time and motion study. Do you recall those questions?

MR. SIDNEY MORRISON: Yes, I do.

Q. And can you tell me whether you would, in fact, need access to facilities to be able to do those kind of motion studies if you were to do them properly?

MR. SIDNEY MORRISON: The facilities that you would, in fact, need access to are vehicles that installers travel in, the locations that they go to to do their work.

It may, in fact, be an outside facility of some sort; but, in fact, it probably is cabinet

or terminal, a hut that you have to have access to. You would need access to the detailed information in the form of the service request and final service order product that the technician works with.

To acquire all of that data would mean that you, in fact, have to have access to a certain level of SBC's facilities.

Q. And can you tell me what kind of facilities you need to access in order to be able to do a time and motion study of, for example, the service ordering process?

MR. SIDNEY MORRISON: Well, the service --

MR. SULLIVAN: Objection, your Honor. It goes well beyond the scope of my cross.

JUDGE HAYNES: Sustained.

BY MR. TOWNSLEY:

Q. Can you tell me what kind of facilities you'd need access to do time and motion studies about travel time, for example?

MR. SIDNEY MORRISON: The facilities on travel time are pretty much those that I just went

through. A facility in the form of vehicle that the installer, for instance, is going to drive. A facility that gives me access to the detail of the service order, provision order that the technician is using. The loading and routing mechanisms that assemble the load that the technicians need.

That level of detail so that you know that this package of orders that an installer is going to be dispatched is, in fact, the most efficient package of orders for that technician to take the field and work in the most effective manner and especially whether that is an aggregated group of orders that allow us that low level dispatching control over the technician.

So that would, in fact, require different level of access to acquire at that type of information.

Q. Mr. Sullivan asked you a question. I think it may have been the first question he asked you, is whether you had done any type of motion studies since you had -- since we had circulated your prefiled testimony in this case on May 6th, 2003.

MR. SIDNEY MORRISON: I just did a time and motion study in the amount of time I've been on the witness stand. My stopwatch quit.

Q. Did you -- were you able to do a time and motion study for service ordering process?

MR. SIDNEY MORRISON: No, I haven't.

Q. And why not?

MR. SIDNEY MORRISON: I don't have access to the facilities and means to accomplish that.

Q. Mr. Sullivan also asked you some questions about -- that were directed to both you, Dr. Ankum, and you, Mr. Morrison, about whether you were accusing SBC subject matter experts of either lying on providing false information that was fed into the cost studies. Do you recall those questions?

DR. AUGUST ANKUM: Yes.

Q. Can you please tell me -- can you please elaborate on whether you were accusing the SBC subject matter experts of providing false information.

DR. AUGUST ANKUM: I don't think that we have made an accusation.

Q. Were you -- strike that.

DR. AUGUST ANKUM: The only purpose of discussion and testimony both in the direct and rebuttal was to point out to the commission that if -- that the potential exists for bias, very strong potential; that the FCC has recognized that bias and, in fact, rejected Verizon's approach, among other reasons, the potential bias.

And given that the bias -- a potential bias exists, that if there was no support information being provided, then neither the commission nor any of the intervenors can determine whether that bias actually occurred or not.

We simply don't have the information. Just made up numbers out of the blue.

MR. TOWNSLEY: Thank you. I have no further redirect.

JUDGE HAYNES: Recross?

MR. SULLIVAN: Very briefly.

RECROSS-EXAMINATION

BY

MR. SULLIVAN:

Q. Mr. Morrison, in order to do a time and motion study, you don't actually need the SBC vehicles to physically drive yourself or to have your study participants drive; do you?

MR. SIDNEY MORRISON: You need certain access to it if you're going to do an effective time and motion study. With the installer, you really should be riding inside the vehicle.

Q. If they drive Dodge minivans, Caravans, you couldn't just rent one and use that?

MR. SIDNEY MORRISON: The installer is not with me doing the driving; is he?

Q. Why do you need the installer to do a time and motion study?

MR. SIDNEY MORRISON: He's as much a part of the travel process as the van is.

Q. And is he any -- what expertise to the driving process does he bring that, say, you or Dr. Ankum doesn't bring?

MR. SIDNEY MORRISON: He knows the detailed routes that he would take to get from address to address. He's been in this geographic area probably a large part of his career, certainly most recently.

Typically, the way the installers work, they know the geography. He knows the shortcuts. He knows the back alleys. He knows the times to avoid traffic. He knows the timing on the lights. He knows a lot of detailed info that I don't know. And he is a big piece of the time and motion study on that travel time.

Q. And you couldn't subcontract someone else who also drives in that same area on a regular basis to perform the same tasks?

MR. SIDNEY MORRISON: Not unless we can transplant the brain of the technician.

Q. So it's your view that driving a car from Point A to Point B is so difficult that you cannot replicate it without actually using the SBC drivers; is that correct?

MR. SIDNEY MORRISON: The difficulty is not the

issue. It's the driver himself and the experience and his background that he brings to that process.

Q. And it's -- and that aspects of his job is so instrumental to driving from Point A to Point B that you can't do a time and motion study without actually having him behind the wheel?

MR. SIDNEY MORRISON: We can do a time and motion study under a lot of circumstances. To what level of accuracy you want this, I think that would -- having the actual driver and the actual vehicle he does and the actual area that he does the jobs with his particular knowledge and skill and background, brains to process the highest degree of accuracy.

Q. And could you get an accurate time and motion study by using some driver other than the SBC driver?

MR. SIDNEY MORRISON: I personally don't believe we could.

Q. And you couldn't do it by having, not his Dodge minivan, but a rented Dodge minivan; is that right?

MR. SIDNEY MORRISON: Well, the actual vehicle, the color of the van or who owns it may not be the big issue. But the fact that you have a van that drives comfortably --

Q. Presumably, he's familiar with intricacies of the car and, you know, he knows how far he can go without gassing up, whether he can take a turn tightly, whether he can accelerate, run through a red light. I mean, isn't that also as important as his particular brain knowledge of the alleys in Chicago or wherever he's serving?

MR. SIDNEY MORRISON: Yeah, I think what you're doing is describing the granulation of the time and motion study that probably would have to be run.

Q. And then Mr. Townsley asked you about performing time and motion studies for other aspects other than travel. And he said that you weren't -- you said you weren't able to do it because you didn't have access to SBC's facilities. Did I understand you right?

MR. SIDNEY MORRISON: Yes.

Q. Okay. Now, why couldn't you use a CLEC's

facilities?

MR. SIDNEY MORRISON: The particularly unique set of information that we're looking for is a representative sample for cost study of the work task -- in this case, meaning service orders -- that this particular technician would use. And we need to know of the universe of service orders available to this technician from this particular area, is this the most effective assembly of those jobs to get the most efficiency out of your technician, in this case, related to travel time.

Q. Well, and my question didn't relate to travel times. It related to other aspects.

MR. SIDNEY MORRISON: Other aspects, you would --

Q. Same answer?

MR. SIDNEY MORRISON: Very similar answer.

Q. So it is your opinion that you could not run a time and motion study by using some similar function that is existing in one of your CLEC clients networks; is that right?

MR. SIDNEY MORRISON: Well, the CLEC client

wouldn't have the same -- what you're looking for is a surrogate set of information.

Q. And the CLEC clients that you represent don't have the surrogate set up?

MR. SIDNEY MORRISON: They would not be representative of the same profile that the ILEC.

MR. SULLIVAN: I have no further questions. Thanks.

JUDGE HAYNES: Any re-redirect?

MR. TOWNSLEY: Just one or two. I promise

REDIRECT EXAMINATION

BY

MR. TOWNSLEY:

Q. Mr. Morrison, Dr. Ankum, when you were retained by your clients to provide testimony in this proceeding, were you retained to do time and motion studies?

DR. AUGUST ANKUM: No, we were not.

Q. And do you know why that is? Do you know who carries the burden of proof in this case?

DR. AUGUST ANKUM: My understanding is as follows: Even though we have in the past

recommended time and motion studies to -- in particular, MCI and, in fact, that's has been adopted by the Washington Commission on motion studies. So they have been done.

But the burden of proof here, of course, is on SBC. But besides that, as I have stated earlier my testimony, the key is not so much to observe a particular activity to make sure that this is a statistically valid sample being represented in the time and motion studies that may not be relative to each and every activity, but to a lot of the activities, the running of the cross connects. Ms. Gomez McKeans, for example, testified that the running of the cross connect can vary between 50 to 150 of cable.

The moment you rate it you say, well, sometimes it's 50 feet and sometimes it's 100 feet. How did you rate that. If you're running hundreds of thousands of cross connects, possibly millions, are more of them 100 feet or are more of them 50 feet?

If you have don't backup information,

you can't possibly establish whether it was a statistically valid sample. We've asked that and the answer came back that Ms. Gomez McKeans is not a statistician.

To do the time and motion study, you need to have information about the service orders that the service orders that SBC is provisioning. You need very detailed information to determine whether you are actually in your studies representing a statistically valid sample; and if you're not, then the entire time and motion study can be thrown out. We simply don't have that information.

MR. TOWNSLEY: Thank you. I have no further re-redirect.

JUDGE HAYNES: Thank you, Dr. Ankum and Mr. Morrison.

DR. AUGUST ANKUM: Thank you.

MR. SIDNEY MORRISON: Thank you.

MR. SULLIVAN: Thank you.

JUDGE HAYNES: We are continued till.

MR. TOWNSLEY: Didn't you guys have any cross?

MR. HARVEY: We did not.

JUDGE HAYNES: Okay. And tomorrow we're leaving at 6:15; so if we have to skip lunch, we'll see.

MR. TOWNSLEY: Thank you very much.

JUDGE HAYNES: See you tomorrow at 9:00.

(Whereupon, further proceedings in the above-entitled matter were continued to March 19, 2004, at 9:00 a.m.)